



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books	
Search	PubMed	▼	for					Go	Clear
		Limits	Preview/Index	History	Clipboard	Details			

Entrez
PubMed☐ 1: Mol Cells 1999 Jun 30;9(3):252-7Related Articles, NEW BooksPubMed
Services

ermSF, a ribosomal RNA adenine N6-methyltransferase gene from *Streptomyces fradiae*, confers MLS (macrolide-lincosamide-streptogramin B) resistance to *E. coli* when it is expressed.

Jin HJ.

Department of Genetic Engineering, College of Natural Science, The University of Suwon, Korea. hjjin@mail.suwon.ac.kr

Related
Resources

The Erm family of methyltransferases confers the MLS antibiotic resistance to pathogenic microorganism through the mono- or dimethylation of a single adenine residue in 23S rRNA, which is known as the target site for modification. One of the erm genes, ermSF was cloned from *Streptomyces fradiae* NRRL 2702 by PCR and overexpressed in *E. coli* BL21(DE3) as both a soluble protein and insoluble aggregate (inclusion body) using the T7 promoter driven expression vector, pET23b. Even though most of the overexpressed protein existed as an inclusion body, *E. coli* cells showed resistance to erythromycin. The lowering of incubation temperature from 37 degrees C to 22 degrees C facilitated the purification of the protein by increasing the fraction of soluble protein. The soluble protein was purified using immobilized metal ion (Ni²⁺) affinity chromatography in a one-step manner to the apparent homogeneity. The 23S rRNA of *E. coli* was found to be a good substrate for the purified ErmSF.

PMID: 10420982 [PubMed - indexed for MEDLINE]

Display	Abstract	▼	Sort	▼	Save	Text	Clip Add	Order
---------	----------	---	------	---	------	------	----------	-------

Write to the Help DeskNCBI | NLM | NIHDepartment of Health & Human ServicesFreedom of Information Act | Disclaimer

sparc-sun-solaris2.8 Feb 7 2002 10:32:18